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BUTLER

COMPLETE READY-MADE
STEEL BUILDINGS

for various purposes

BOOK 92



Butler Manufacturing Co.

KANSAS CITY

MINNEAPOLIS

BUTLER

BUTLER

Charles W. Butler & Co.

Book No. 92

BUTLER

Ready - Made

STEEL BUILDINGS

ALL KINDS *from a SINGLE*
GARAGE *to a COMPLETE*
SET *of BUILDINGS*

IN Addition we manufacture Oil Equipment, Stock Tanks, Grain Bins *and other* Sheet Steel Products for the Farm; Steam Condensers and other Sheet Steel Products



Butler Manufacturing Co.

Kansas City, Mo. :: Minneapolis, Minn.



BUTLER MANUFACTURING CO.
Kansas City — Minneapolis

QUALITY *plus* ADAPTABILITY
—that is the BUTLER idea of service. No matter how good the material may be, it must be formed and constructed properly to give the best service.

☞ Butler *Ready-Made* Steel Buildings are designed to give this kind of satisfactory service.

☞ The Butler Manufacturing Company, as you may know, has been in business a quarter of a century and has a financial rating of over One Million Dollars. We refer you to Dun and Bradstreet or your banker.

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BUTLER MANUFACTURING CO.

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THREE GENERAL TYPES OF BUTLER *READY-MADE* STEEL BUILDINGS



A Butler *Ready-Made* Steel Factory Building



A Butler *Ready-Made* Steel Garage



A Butler *Ready-Made* Steel Drive-in Station



Here Are a Few Practical Uses For Butler *Ready-Made* Steel Buildings

Aeroplane Hangars	Laboratories
Blacksmith Shops	Line Pump Stations
Boiler Houses	Lumber Sheds
Boat Houses	Offices and Oil Houses
Bunk Houses	Paint Houses
Camp Houses	Pump Houses
Carpenter Shops	Railway Motor Houses
Cook Houses	Repair Shops
Crossing Houses	Scale Houses
Engine Houses	Section Houses
Filling Stations	Shelter Houses
Flagman's Houses	Shops
Garages, Single	Store Houses
Garages, Apartment	Summer Houses
Grease Plants	Tool Houses
Hand Car Houses	Warehouses
Implement Sheds	

Butler *Ready-Made* Steel Buildings are manufactured complete, ready to erect. Sturdiness gives them extra stability for permanent use. Their design makes them portable when desired.

Manufactured and Sold by

Butler Manufacturing Company

KANSAS CITY, MO.

MINNEAPOLIS, MINN.



BUTLER MANUFACTURING CO.

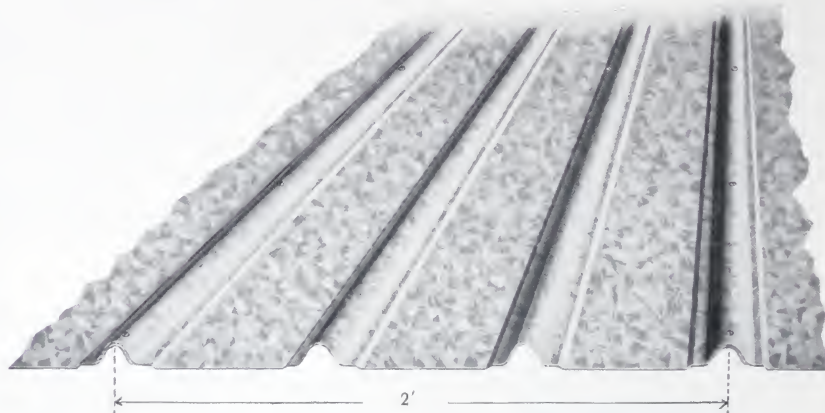
Kansas City — Minneapolis

HERE ARE A FEW IMPORTANT FEATURES OF BUTLER READY-MADE STEEL BUILDINGS

Butler *Ready-Made* Steel Buildings consist of a structural steel frame covered with galvanized wall and roof sheets.

The superiority of Butler *Ready-Made* Steel Buildings comes from the use of the important features mentioned below.

Rigid 24 Gage Galvanized Sheets



The above is a section of a regular wall or roof sheet.

The sheets come to us in the flat, 30 inches wide and in various lengths. They are first cut square; then they are run through a large press which forms the deeply drawn paneled corrugation, $1\frac{1}{4}$ inches deep every 8 inches. This makes

the sheets 26 inches wide with a panel corrugation on each edge and two panel corrugations between. The sheets are then placed in a gang punch and holes for bolts are punched where required for bolting the sheets together and to the structural frame.

Deeply Drawn Paneled Corrugations



The above illustration shows the deeply drawn paneled corrugation, $1\frac{1}{4}$ inches deep, which greatly strengthens and stiffens the sheet.

Each edge of each sheet, as well as at two points between, is formed with this paneled corrugation. In joining the sides of the sheets one of these paneled corrugations fits over the edge paneled corrugation of the adjacent sheet. Then the two sheets

are bolted together with galvanized bolts. Thus two thicknesses of steel are provided in the joint itself, which makes the joint very stiff.

Wall and roof sheets are bolted to all horizontal members of the structural frame with galvanized bolts on 8-inch centers. This one feature alone adds greatly to the strength and rigidity of Butler Buildings.

HERE ARE A FEW IMPORTANT FEATURES—Continued**One Piece Corner**

The one piece corner construction simplifies the erection of small Butler *Ready-Made* Steel Buildings, as shown on page 12. It increases the strength and adds to the appearance of the buildings.

**One Piece Ridge Construction
Makes Butler *Ready-Made* Roofs
Easy to Erect**

The one piece ridge construction eliminates the ridge roll. A single sheet is curved at the middle, as shown above. This makes a simpler and stronger ridge than with the old construction. Like the wall sheets, each roof sheet is formed with four deep lengthwise paneled corrugations 8 inches apart on centers. The paneled corrugations at the edge of the sheets fit over each other and a joint is obtained as shown on page 6.

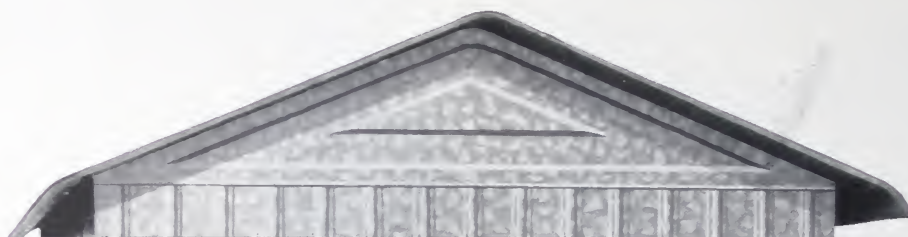
All need of a separate ridge support of



any kind is thus eliminated. The result is a sturdy, substantial and exceptionally good looking roof. The same method of joining the roof sheets and holding them in place is employed as that used in the wall construction.

HERE ARE A FEW IMPORTANT FEATURES—Continued

Curved Eaves



Curved eaves are formed much the same as the one piece ridge. This adds stiffness to the eave projection as well as adding to the pleasing appearance.

Structural Purlins

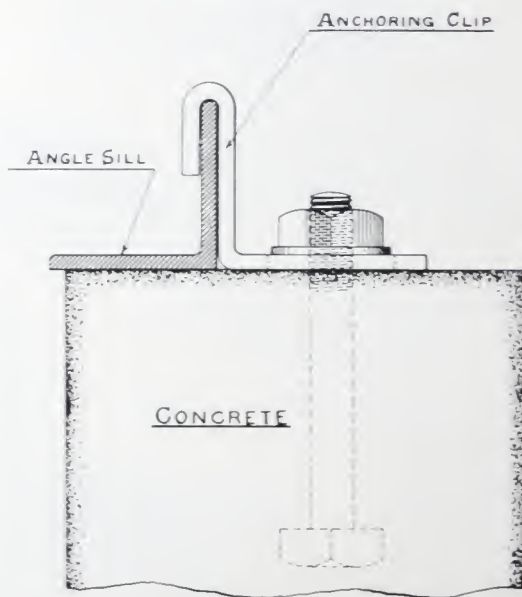


This structural purlin is rolled from two pieces of steel and welded together into the form shown above. It is stronger and lighter than an angle construction that is often used. This form is used for purlins for the wider spaces. It increases the strength and reduces the weight of Butler Ready-Made Buildings.

"Snow Tighting"

The paneled corrugations on wall sheets are stamped flat at top and bottom, which provides weather-tight joints between the wall sheet and the bottom angle and between the wall sheet and the eave angle. The joint between the roof sheets and eave plates is provided with a "snow tightening" device which fits into the paneled corrugations of the roof sheets and makes this joint weather-tight.

Foundation Clips



The angle sills to which the wall sheets are bolted are secured to the foundation by means of the foundation clips, as shown above.

A foundation plan showing location of bolts for holding these clips will be furnished as soon as building is ordered. Do not start your foundation until this plan is received.

SHOWING THE SUPERIORITY OF BUTLER READY-MADE STEEL SHEETS

In order to determine how much stronger Butler Sheets are than ordinary corrugated sheets, the Butler Engineering Department conducted a series of tests. The pictures below indicate the comparative strength of Butler Deeply Drawn Paneled Corrugated Sheets (24 gage) and ordinary 24 and 26 gage corrugated sheets.



1. This shows a 24 gage galvanized Butler Deeply Drawn Paneled Corrugated Sheet holding up 101 pounds. Sagged 1 inch.



2. Here is a 24 gage ordinary corrugated sheet supporting only 25 pounds. Sagged 1 inch.



3. This 24 gage ordinary corrugated sheet is ready to break under only 51 pounds.



4. When this 26 gage ordinary corrugated sheet was used, a weight of only 13 pounds made it sag 1 inch.



5. This 26 gage ordinary corrugated sheet is ready to break under only 21 pounds—this is only about 1/5 of the load supported by the 24 gage Butler Sheet that sagged only 1 inch.



6. This man weighing 136 pounds, is supported by a 24 gage Butler Sheet. This clearly shows the superior strength of Butler Paneled Corrugated Sheets. Note this also: the sheet on the ground, the one nearer the sidewalk, supported 151 pounds.

Note: In the above tests, showing the superiority of Butler Sheets, the supports were 118 inches apart.



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INFORMATION ON STANDARD BUTLER BUILDINGS 8' AND 10' HIGH



Parts numbered in this picture are explained below

No. 1 in Picture

Angle Sills: Extend around building and are bolted to bottom of walls with horizontal leg turned out and vertical leg turned up on inside of walls. $1\frac{1}{2}$ "x $1\frac{1}{2}$ "x $\frac{1}{8}$ " angles are used for buildings less than 28 feet wide.

2 "x 2 "x $\frac{1}{4}$ " angles are used for buildings 28 feet to 36 feet wide.

$2\frac{1}{2}$ "x 2 "x $\frac{3}{16}$ " angles are used for buildings 38 feet wide and wider.

No. 2 in Picture

Angle Girts: Extend entirely around buildings. They are bolted to inside of walls with horizontal leg turned in. In all buildings having one girt, vertical leg turns down. In buildings having two girts, vertical leg on bottom girt turns down; on top girt, up.

Same size angles are used as for sills.

Walls 8 feet high without windows or if only small windows are used have no girts.

Walls 8 feet high with large windows and walls 10 feet high without large windows have one girt.

Walls 10 feet high with large windows have two girts.

No. 3 in Picture

Top End Angles: Are bolted to top of end walls with horizontal leg turned out and vertical leg turned down on inside of wall. For 12-foot end walls and narrower, this angle is shipped attached to gable.

Same size angles are used as for sills.

No. 4 in Picture

Eave Plates: Are bolted to top of side walls with deformed leg turned out and vertical leg turned down on inside of wall.

$2\frac{1}{2}$ "x 2 "x $\frac{3}{16}$ " angles are used for all buildings.

No. 5 in Picture

Gable Angles: Are used at bottom and top of gables wider than 12 feet with horizontal leg turned out and vertical leg bolted to inside of gable sheets. Gables 34 feet wide and wider have additional angle bracing.

Same size angles are used as for sills.

Not Shown in Picture

Cross Ties: Are used across buildings from top of side walls at spacings not to exceed 12 feet.

$1\frac{1}{2}$ "x $1\frac{1}{2}$ "x $\frac{1}{4}$ " angles are used for buildings 16 feet wide and less. Trusses are used for buildings over 16 feet wide.

No. 6 in Picture

Trusses: Are used across buildings at spacings of 10 feet regularly and not to exceed 16 feet in special cases to support purlins to which roof sheets are bolted.

No. 7 in Picture

Truss Posts: Are used on inside of walls under ends of trusses to support them and to reinforce the walls.

Same size angles, doubled, are used as for sills.

No. 8 in Picture

Knee Braces: Are used on trusses in buildings 28 feet wide and wider.

Angles are same size as main members of truss.

No. 9 in Picture

Purlins: Are bolted above top members of trusses to support roof sheets and to provide end-wise bracing. Special structural form is used for spans 14 feet and over.

$2\frac{1}{2}$ "x 2 "x $\frac{3}{16}$ " angles are used on spans less than 14 feet.

INFORMATION ON STANDARD BUTLER BUILDINGS 8' AND 10' HIGH

—Continued

Four purlins are used on buildings 18 feet to 26 feet wide; six on 28 feet to 32 feet wide; eight on 34 feet to 36 feet wide; and ten on 38 feet to 44 feet wide, all inclusive.

No. 10 in Picture

Longitudinal Braces: Are bolted to bottom members of trusses to provide additional endwise bracing as needed.

Same size angles are used as for sills.

Special shapes used on 14-foot and 16-foot spans.

No. 11 in Picture

Corner Posts: When used extend from sills to eave plates in each corner.

Corner Posts: When used—

1 1/2"x1 1/2"x1/8" angles are used for buildings up to 26 feet wide.

2"x2"x1/8" angles are used for 28 feet to 36 feet wide, inclusive.

2"x2"x3/16" angles are used for 38 feet wide and wider.

No. 12 in Picture

Vertical Angles: (In sides of buildings.)

Single angles are used on each side of large windows.

Double angles are used in all spaces exceeding 12 feet between truss posts or other vertical supports.

Same size angles are used as for sills.

No. 13 in Picture

Vertical Angles: (In ends of buildings.)

Where spacing of doors and windows will permit, vertical angles are used in the ends of buildings.

2 1 1/2"x1 1/2"x1/8" angles back to back are used in buildings 14 feet to 26 feet wide, inclusive.

4 2"x2"x1/8" angles two back to back are used in buildings 28 feet to 34 feet wide, inclusive.

Above angles extend from sill to top end angle.

2 4 angle columns are used on each end of buildings 36 feet wide and wider, and extend from sill to top chord of gable.

No. 14 in Picture

Corner Braces: Are used across corners at top of walls.

Same size angles are used as for sills.

Not Shown in Picture

Sway Braces: Are used on buildings 28 feet wide and wider at the top and bottom of truss posts, corner posts, and vertical end angles. These angles attach approximately 2 feet each way from the intersection of the post with eave plate and sill. They are placed in every other space only when location of doors and windows will permit.

Same size angles are used as for sills.

No. 15 in Picture

Wind Braces: Are used on buildings 28 feet wide and wider. Two angles forming a cross vertically between trusses are used in every other space.

Same size angles are used as for sills.

No. 16 in Picture

Door Openings: Door frames for 10-foot high buildings are made of 1 1/2"x1 1/2"x1/8" angles backed up with 2"x2"x3/16" angles on inside.

Door frames in buildings 8 feet high are made of 1 1/2"x1 1/2"x1/8" angles backed up with 2"x2"x1/8" angles on inside.

No. 17 in Picture

Bracket Braces: Triangular bracket braces are used at top and bottom of truss posts and vertical end posts in all buildings.

Twelve gage material is used in buildings 18 feet to 26 feet wide.

Ten gage material is used in buildings 28 feet to 36 feet wide.

Three-sixteenth-inch material is used in buildings 38 feet to 44 feet wide.

One-quarter inch material is used in buildings over 44 feet wide.

No. 18 in Picture

Corner Bracket Braces: Triangular corner bracket braces are used at top and bottom of all corner posts.

Twelve gage material is used in all buildings.

No. 19 in Picture

Bolts: 3/8" bolts are used in angle frame members on all buildings up to 36 feet wide.

One-half-inch bolts are used in all buildings 38 feet wide and wider.

Three-sixteenth-inch bolts are used on all buildings for bolting wall and roof sheets to angle frame and for bolting sheets together.

Lead washers are used only on roof sheets under bolts to purlins.

On buildings 12 feet wide and narrower, one-fifth pitch roof is regularly furnished.

On buildings 14 feet and wider, one-quarter pitch roof is regularly furnished.

Roof has an overhang of one foot at gable ends and about eight inches at the eaves.

Buildings 18 feet wide and wider have trusses. The trusses are built in accordance with the "Fink" design, generally used by architects and engineers.

Minimum distance of windows or doors from the corner of building or from each other is regularly 12 inches. This can be reduced to 6 inches if necessary.

The foundation is regularly 2 1/4 inches wider and 2 1/4 inches longer from outside to outside than the listed width and length of buildings 26 feet wide and less, 3 1/4 inches for buildings 28 feet to 36 feet wide, 4 1/4 inches for buildings 38 feet wide and wider.

Butler Ready-Made Steel Buildings are designed to withstand a wind and snow load of 30 pounds per square foot. This is equivalent to the pressure developed by a wind of nearly 80 miles per hour or by a blanket of loose dry snow from 3 feet to 5 feet deep.

For a pleasing appearance as well as for increasing the length of life, Butler Ready-Made Steel Buildings should be painted with some good metal paint. The first coat of paint on galvanized steel will last longer if the metal is first treated with a preparation for this purpose, or the sheets may be painted with vinegar. If vinegar is used it should be well washed off before applying the paint.

Buildings are shipped knocked down, crated and take a third class freight rate in less than carload lots or a fifth freight rate in carload lots.

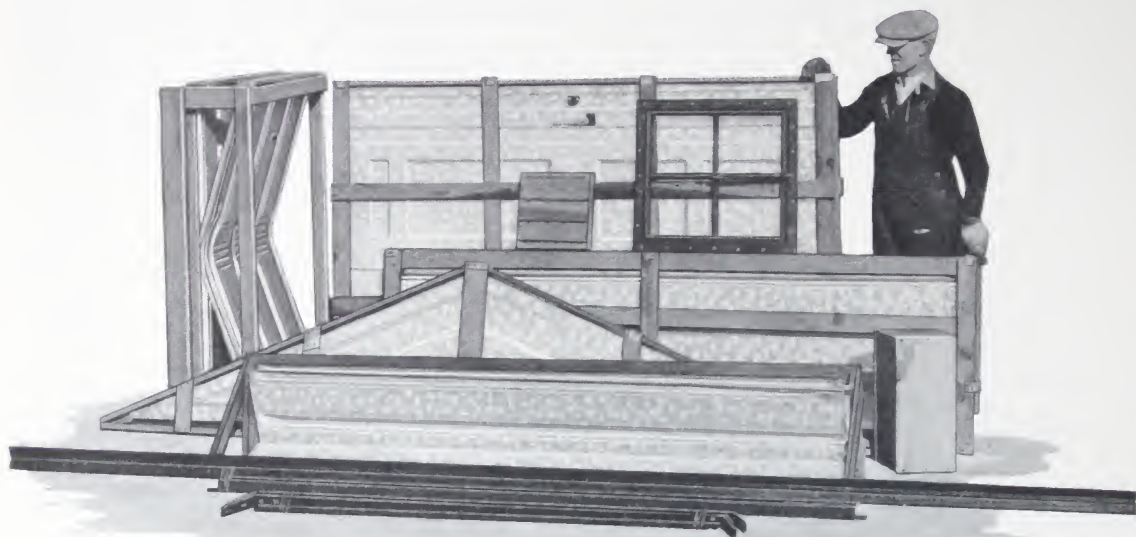


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IT IS EASY TO ERECT A BUTLER READY-MADE STEEL BUILDING

*Here are Shown Different Stages in the Erection of a
Butler Ready-Made Steel Garage*



This is the way the garage is crated. It comes to you in conveniently sized crates—easy to handle.



Here is shown how easily the ends and side walls can be put up by following the directions that are sent with the building.

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ALL SIMILAR PARTS OF A BUTLER BUILDING INTERCHANGE

*As Butler Similar Parts Interchange even in the Biggest Buildings
Ease of Erection is Secured*



Complete roof sections are easily put up and quickly bolted in place. The directions show where to put each part.



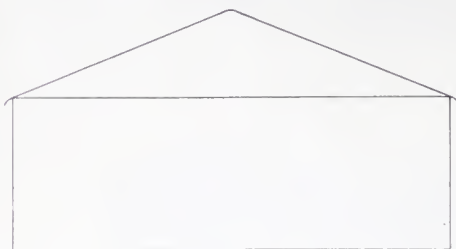
Here is the completed garage. By following the directions sent with the building you know each step to take in the erection of all Butler Buildings.



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STANDARD TYPES OF BUTLER READY-MADE STEEL BUILDINGS



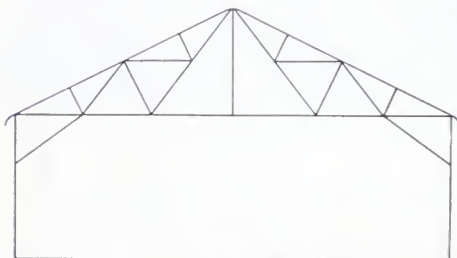
Type G

Buildings 4 feet to 16 feet wide. Without trusses. For sizes see page 16.



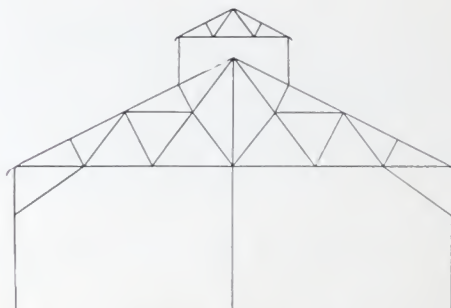
Type GT

Buildings 18 feet to 22 feet wide. Clear span with truss. For sizes see page 16.



Type GTK

Buildings 24 feet to 40 feet wide. Clear span with truss. For sizes, see page 16.



Type GTM1 or GTM2

Buildings 38 feet to 60 feet wide. With or without monitor. With one or two rows of posts. For sizes see page 16.

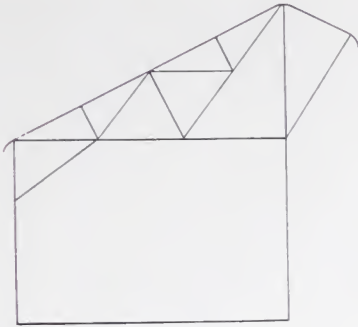


Type RT

Buildings 42 feet and over. Clear span, with truss.
With or without monitor.

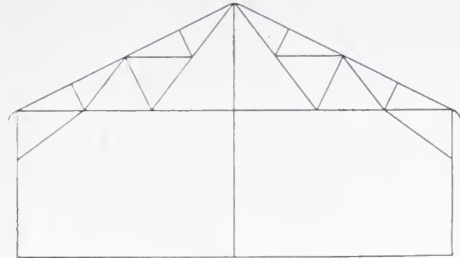
STANDARD TYPES OF BUTLER READY-MADE STEEL BUILDINGS

—Continued



Type SAT

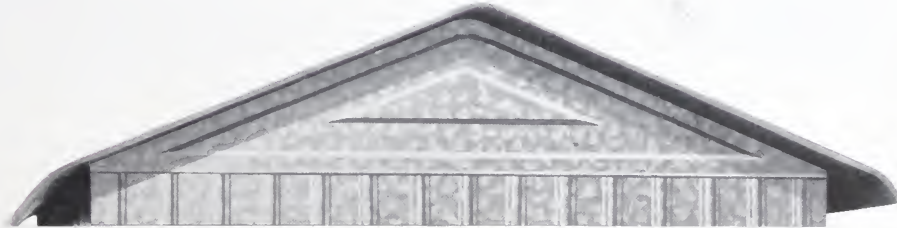
Open Shed 14 feet to 20 feet wide. For sizes see page 19.



Type SGT

Open Shed 18 feet to 40 feet wide. For sizes, see page 19.

CONSTRUCTION OF GABLE END



The gable end of buildings 12 feet wide and less is stamped as shown above. Twenty-four gage galvanized steel is used.

Buildings 14 feet wide and over have regular Butler corrugated sheets bolted to angle frame for gables as shown in cut below.



Buildings 18 feet wide and wider have trusses. The trusses are built in accordance with the "Fink" design, generally used by architects and engineers.

Buildings 12 feet wide and less regular-

ly have one-fifth pitch roof. Buildings 14 feet wide or wider regularly have one-fourth pitch roof. The rise of the round roof at the middle is equal to $\frac{1}{8}$ of the span.

BUTLER READY-MADE STEEL GABLE ROOF BUILDINGS

Butler *Ready-Made* Steel Buildings consist of a structural steel frame covered with galvanized wall and roof sheets.

**Sizes Regularly Furnished**

These buildings are regularly furnished in widths from 8 to 60 feet, in multiples of 2 feet, any length desired in multiples of 2 feet, and in heights from 8 to 14 feet. **For larger or smaller buildings, write for information.**

Wind and Snow Load

Butler *Ready-Made* Steel Buildings are designed for a wind and snow load of 30 pounds per square foot, which is equivalent to the pressure developed by a wind of almost 80 miles per hour or by a blanket of loose dry snow from 3 to 5 feet deep.

Shipped Complete

They are complete with all bolts, bracings and reinforcements necessary to erect

on your foundation. Foundation prints showing location of foundation bolts are mailed as soon as the order for the building is received. In this way the foundation can be put in and be ready by the time the building is received.

Prints Furnished

Detailed instructions for erecting the buildings, together with blue prints showing location of each part, are sent with each building.

Information desired

When asking for additional information or when sending in an order be sure to mention size, number and location of doors and windows.

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BUTLER READY-MADE STEEL ROUND ROOF BUILDINGS



The inside view of the building shown below. Notice the clear span and the uniform lighting due to the windows in the monitor.



Outside View of Butler Ready-Made Steel Round Roof Building 76 feet wide by 128 feet long.

The above pictures show a round roof design of roof and roof truss that is desirable for wide spans and certain conditions.

This type of building can be furnished for

clear spans up to 100 feet in width and any length desired.

Additional information given upon request.

SIZES OF BUTLER *READY-MADE* STEEL APARTMENT GARAGES



Each apartment is complete. It has the same equipment that is regularly furnished for a single garage except that double hinged doors are regularly located in the side wall of apartment garages.

A solid partition is furnished between apartments. Partitions may be omitted if desired.

Garages are regularly furnished with 8-foot high side walls and in 14, 16, 18

and 20-foot widths and in 16, 18, 20 and 22-foot lengths.

For other sizes write for information.

Extra apartments are made complete with double door, window and partition, and may be easily added to the original garage at any time.

Width is always from side wall to side wall, regardless of the location of doors. Length is always from gable end to gable end.

SIZES OF BUTLER *READY-MADE* STEEL SINGLE GARAGES

Butler *Ready-Made* Steel Single Garages are made, as shown here, with wall and roof sheets of 24 gage galvanized steel and with all necessary side and end bracings.

They are complete with one set of double hinged doors 7'4" wide by 7'2" high on 8-foot wide garages and 8' wide by 7'2" high double hinged doors on wider garages. These doors are regularly located in the end wall.

Garages also regularly have one 22"x 24" four-light steel sash ventilating window with double strength clear glass and gable roof trim.

Garages are regularly made with 8-foot high side walls and in 8, 10 and 12-foot

widths and in 14, 16, 18 and 20-foot lengths.

For other sizes write for information.

Width is always from side wall to side wall, regardless of the location of doors. Length is always from gable end to gable end.



**BUTLER READY-MADE STEEL "TYPE A" OPEN SHED**

The "Type A" Open Shed, as shown here consists of roof, end walls and back wall, without front wall. It is complete with all necessary bracings, bolts and reinforcements. Front edge of roof of this shed has an overhang of approximately four feet.

Widths are made regularly in fourteen, sixteen, eighteen and twenty feet; heights are eight, ten and twelve feet, and any length desired in multiples of two feet.

For storing of machinery, implements and equipment the "Type A" Open Shed can be used to excellent advantage. It is also an economical type of building when used in connection with the "Type B" Open Shed (shown below) for parking station coverage.

**BUTLER READY-MADE STEEL "TYPE B" OPEN SHED**

The "Type B" Open Shed is made without end or side wall sheets. It is complete with roof, gable ends and supports together with all necessary bracings, bolts and reinforcements.

The "Type B" Open Shed makes ideal

coverage for shipping docks. It makes an ideal outdoor dining hall, dance hall, etc. When used in connection with "Type A" Open Shed, shown above, it makes economical car storage for parking stations.

SIZES AND WEIGHTS OF BUTLER READY-MADE STEEL LUNCH ROOM BUILDINGS



Butler Lunch Room Buildings are regularly made in the four sizes listed below. Other sizes can be furnished but will take longer to make up.



No. 1. Building: 10 feet wide, 14 feet long and 8 feet high. Complete with three 48"x37" 8-light steel sash hinged windows, equipped with metal casing. One 2'8"x6'6" hinged door without glass in upper part and less casing. Building is not equipped with sign, gutter and down spout, partition or lining.

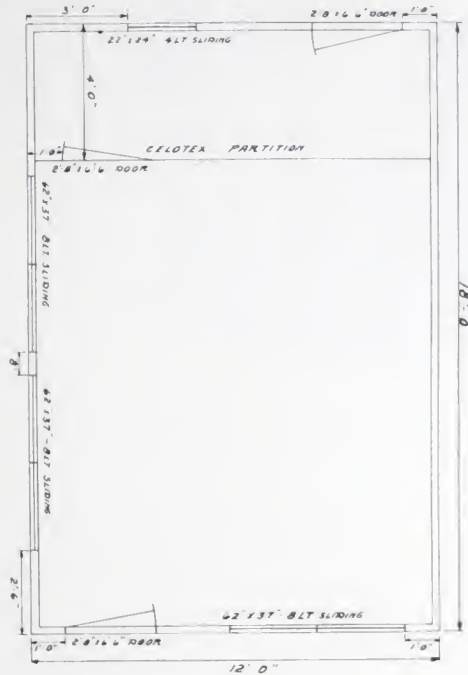
Approximate shipping weight 2,740 pounds.



No. 2. Building: 12 feet wide, 18 feet long and 8 feet high. Complete with three 48"x37" 8-light hinged type steel sash windows, equipped with metal casing. One 2'8"x6'6" hinged steel door with glass in upper part and equipped with metal casing. One 2'8"x6'6" hinged steel door without glass and casing. Building is not equipped with sign, gutter and down spout, partition or lining.

Approximate shipping weight 2,950 pounds.

SIZES AND WEIGHTS OF BUTLER READY-MADE STEEL LUNCH ROOM BUILDINGS—Continued



No. 3. Building: 12 feet wide, 18 feet long and 8 feet high. Complete with three 62"x37" 8-light ventilating type wood sash windows equipped with metal casing. One 22"x24" ventilating type steel sash window. One 2'8"x6'6" hinged wood door with glass in upper part, equipped with metal casing. One full partition. Two 2'8"x6'6" hinged steel doors without glass and casing. Building is equipped with gutter and down spout and metal roof sign 18 inches high by 18 feet long and sign lighter. Sign and lighter are not painted or lettered. Building is not equipped with lining.

Approximate shipping weight 3,870 pounds.



No. 4. Building: 12 feet wide, 18 feet long and 8 feet high. Complete with three 62"x37" 8-light sliding type wood sash windows equipped with metal casing, one 22"x24" ventilating type steel sash window. One 2'8"x6'6" hinged wood French door equipped with metal casing. One full partition. Two 2'8"x6'6" hinged steel doors without glass and casing.

Building is equipped with gutter and down spout, roof sign 18 inches high and 18 feet long and sign lighter. Sign and lighter are not lettered or painted. Celotex and material for lining the above building are also furnished. Door and window in the end of building may be transposed. In this case the windows in side wall will be in the opposite wall from that shown in the floor plan.

Approximate shipping weight 5,470 pounds.



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SIZES AND WEIGHTS OF BUTLER READY-MADE STEEL BUILDINGS TO COVER GREASE RACKS



Butler buildings to cover grease racks are regularly made in the four sizes listed below. Other sizes can be furnished but will require longer to make up.



No. 1. Building: 20 feet wide, 20 feet long and 10 feet high. Complete with two sets of double folding hinged doors 8' wide by 9'2" high. Six 44"x62" 9-light ventilating type steel sash windows, equipped with metal casing. Gutter and down spout furnished for front side of building. Building is not equipped with metal ceiling.

Approximate shipping weight 6,700 pounds.



No. 2. Building: 22 feet wide, 20 feet long and 10 feet high. Complete with two sets of double folding hinged doors 8' wide by 9'2" high. Six 44"x62" 9-light ventilating type steel sash windows, equipped with metal casing. Gutter and down spout furnished for front side of building. Building is not equipped with metal ceiling.

Approximate shipping weight 7,000 pounds.

SIZES AND WEIGHTS OF BUTLER READY-MADE STEEL BUILDINGS TO COVER GREASE RACKS—Continued



No. 3. Building: 24 feet wide, 22 feet long and 10 feet high. Complete with two sets of double hinged doors 8' wide by 9'2" high. Six 44"x62" 9-light ventilating type steel sash windows, equipped with metal casing. Gutter and down spout furnished for front side of building. Building is not equipped with metal ceiling.

Approximate shipping weight 7,600 pounds.



No. 4. Building: 24 feet wide, 24 feet long and 10 feet high. Complete with two sets of double folding hinged doors 8' wide by 9'2" high. Six 44"x62" 9-light ventilating type steel sash windows, equipped with metal casing. Gutter and down spout furnished for front of building. Building is not equipped with metal ceiling.

Approximate shipping weight 8,000 pounds.

ADVANTAGES OF BUTLER READY-MADE STEEL BUILDINGS

The tests officially made by the U. S. Bureau of Standards show conclusively the fire-proofness of steel buildings. For complete report of these tests see page 40.

Butler *Ready-Made* Steel Buildings are not only fire-proof but also have other distinct advantages.

One of the most important features of the Butler Building is the deeply drawn paneled corrugation. This is fully illustrated and described on page 6. Note that the corrugation is not the ordinary kind. It is designed to add to the strength of the

sheet. The amount of extra strength due to the paneled corrugation is clearly shown in the test pictures on page 9. While the corrugation adds to the strength of the steel sheet, it also increases the attractive appearance of the building.

Particular attention should be given to the gage of galvanized steel used in *all* Butler Buildings. Only the best grade 24 gage tight-coated galvanized steel is used in Butler wall and roof sheets.

For other advantages of Butler *Ready-Made* Steel Buildings see pages 6, 7, 8 and 9.

See page 40 for official tests of U. S. Bureau of Standards



BUTLER MANUFACTURING CO.

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SIZES AND WEIGHTS OF BUTLER READY-MADE STEEL PUMP HOUSES



Butler Pump Houses are regularly made in the sizes listed below.
Other sizes can be furnished but will require longer to make up.



No. 1. Building: 8 feet wide, 12 feet long and 8 feet high. Complete with one 2'8"x6'6" hinged door, one 4'x6'6" hinged door and a 24"x30" screened opening. Full partition.

Approximate shipping weight 1,680 pounds.

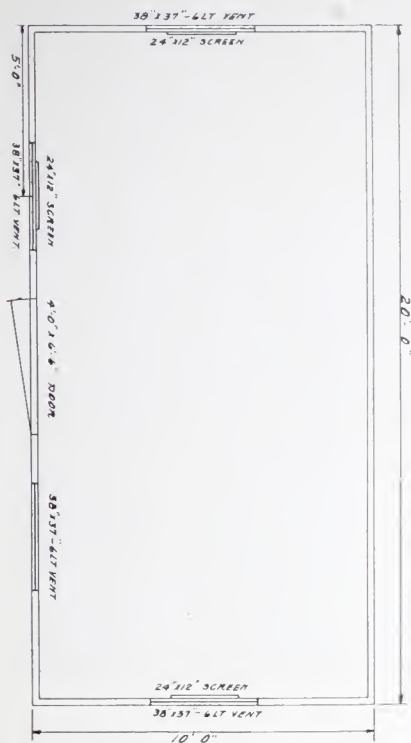


No. 2. Building: 8 feet wide, 14 feet long and 8 feet high. Complete with one 2'8"x6'6" hinged door, one 4'x6'6" hinged door and a 24"x12" screened opening.

Approximate shipping weight 1,820 pounds.

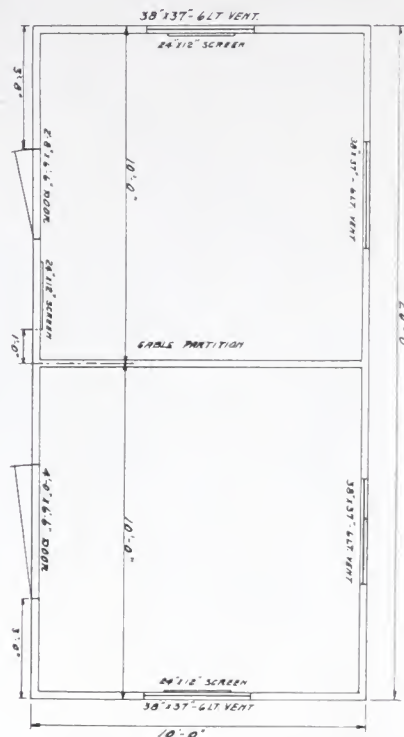
SIZES AND WEIGHTS OF BUTLER READY-MADE STEEL PUMP HOUSES

—Continued



No. 3. Building: 10 feet wide, 20 feet long and 8 feet high. Complete with one 4'x6'6" hinged door equipped with metal casing, four 38"x37" 6-light ventilating type steel sash windows equipped with metal casing, three 24"x12" screened openings.

Approximate shipping weight 2,740 pounds.



No. 4. Building: 10 feet wide, 20 feet long and 8 feet high. Complete with one full partition, one 2'8"x6'6" hinged door complete with metal casing, one 4'x6'6" hinged door complete with metal casing, four 38"x37" 6-light ventilating type steel sash windows equipped with metal casing, three 24"x12" screened openings.

Approximate shipping weight 3,084 pounds.

ERECTION IS EASIER BECAUSE SIMILAR PARTS INTERCHANGE

Because Butler sheets are made in standard size and because the corrugations are paneled according to our uniform design, similar parts are interchangeable. For this reason Butler Buildings are easier to erect.

For example, wall sheets of the same kind can be interchanged. Roof sheets of the same kind can be interchanged.

Because of the interchangeability of similar parts and the simple design of Butler

Buildings, your own employees can put them up.

The Butler Building is a *ready-made* building because it is ready for erection. All parts necessary for putting up the building are sent. A foundation plan is sent. A blue print for erecting the building is sent.

All this permits an economical building with erection cost reduced to a nominal amount.

See page 40 for official tests of U. S. Bureau of Standards



BUTLER MANUFACTURING CO.

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BUTLER READY-MADE STEEL BELT HOUSES AND ENGINE HOUSES



Along with the use of steel derricks naturally comes the use of steel buildings.

Like the steel derricks, Butler Buildings are fire-proof, lightning-proof when properly grounded, and can be made portable when desired. Like the steel derricks, they have a clean-cut, pleasing appearance. In addition, they are weather-proof and easily erected.

Butler Ready-Made Steel Belt Houses

Butler Ready-Made Steel Belt Houses are regularly made in the four sizes shown below. Other sizes can be furnished but will require longer to make up.

The steel buildings reduce the fire hazard by being fire-proof and lightning proof, when properly grounded. They also protect the belting and machinery around the drill rig from the sun and bad weather.



No. 1. Belt House: 5 feet wide and 47 feet long. Twenty-two feet of this length next to the rig is 12 feet high. The rest of the length slopes down to 6'8" high at the engine house.

Belt house is not furnished with ends, windows or doors.

BUTLER READY-MADE STEEL BELT HOUSES AND ENGINE HOUSES

—Continued

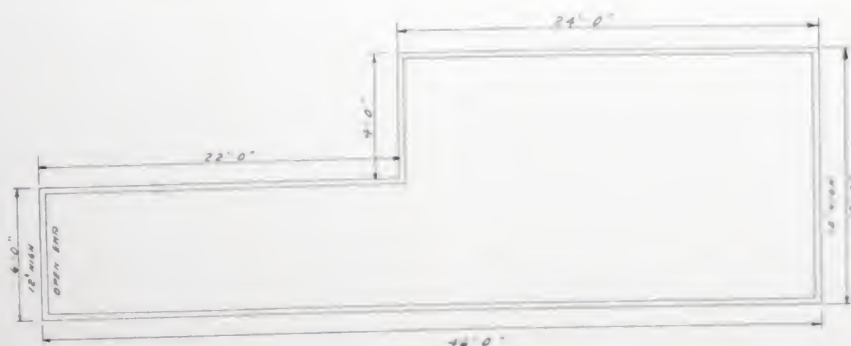


No. 2. Belt House: 48 feet long. Twenty-four feet of this length next to the rig is 12 feet wide and 10 feet high. The rest of the length is 6 feet wide and slopes down to 7'7" high at the engine house.

Belt house is not furnished with ends, windows or doors.



No. 3. Belt House: 8 feet wide, 12 feet high and 46 feet long. Belt house is not furnished with ends, windows or doors.



No. 4. Belt House: 12 feet high and 46 feet long. Twenty-four feet of this length next to the rig is 10 feet wide. The rest of the length is 6 feet wide.

Belt house is not furnished with ends, windows or doors.



BUTLER MANUFACTURING CO.

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BUTLER READY-MADE STEEL BELT HOUSES AND ENGINE HOUSES

—Continued

Butler Ready-Made Steel Engine Houses

Butler Engine Houses are regularly made in the two sizes shown below. Other sizes can be furnished but will require longer to make up.

These steel buildings reduce the fire hazard by being fire-proof and lightning-proof, when properly grounded. They also protect the belting and machinery around drill rig from the sun and bad weather.



No. 1. Engine house: 16 feet wide, 16 feet long and 8 feet high. Complete with two 6'x7'6" sliding doors, two 2'8"x6'6" hinged doors, four 22"x24" ventilating type steel sash windows.

Windows and hinged doors are not furnished with metal casing.



No. 2. Engine house: 16 feet wide, 20 feet long and 8 feet high. Complete with two 6'x7'6" sliding doors, one 2'8"x6'6" hinged door, four 22"x24" ventilating type steel sash windows, two 44"x62" ventilating type steel sash windows.

Windows and doors are not furnished with metal casing.

WHEN IT IS NECESSARY TO MOVE OR EXPAND

For various reasons it may be necessary to move. The Butler Steel Building being *ready-made* can be dismantled, carried away to any place desired and re-erected.

The uniqueness of the design makes this possible.

Butler Buildings have sturdiness that gives them extra stability for permanent use. However, their design, as stated above, makes them portable when necessary.

The change can be made economically as salvage is almost 100%! It can be done speedily.

The Butler design makes it possible to start with the size building needed at the moment and to expand when desired without having to pay a premium for this. Butler Buildings can be added to any time.

The oil man will find the ease with which the Butler Building can be added to an economical asset.

Men in all businesses will readily see the saving that these two features above can make them.

See page 40 for official tests of U. S. Bureau of Standards

BUTLER "FUL-LITE" READY-MADE STEEL DRIVE-IN STATIONS



"Appearance goes a long way toward selling a gallon of gas!"

This Butler Station is light and airy and attractively designed. There is glass on all sides, including the space over the door. So you can get all the light there is to be had. The rest room also has plenty of light. Its window glass is opaque.

Note the even top line of all windows and doors.

The neatness of the metal sign is an asset. There is ample space for advertising. The corner post of the sign and of the canopy are shaped to conform to the attractive appearance of the station. The braces on the canopy posts also add to the general attractiveness of the place. The curved eaves, extending under the sign, fit in with the neatness of the whole design.

Also the corrugations of the side sheets, which give extra strength, increase the beauty of the station.

Complete directions for making foundation and erecting building are sent. The simple instructions can be followed even by ordinary labor. The rest room will be located in either rear corner. The rest room door will be located where specified.

When desired, another canopy may be added by extending the single canopy or another erected on the opposite side of the building. Wall board lining with installation directions furnished at additional cost.

At our attractive quotations it will more than pay you to order this building. There is real economy in this station!

Drive-in stations that advertise themselves increase gallonage. With this in mind we designed the Butler "Ful-Lite" Drive-in Station.

The light comes into the station from all sides. This station takes advantage of the full light. The open appearance of the station is a good feature. It attracts customers.

At night, the electric light goes through the windows and brilliantly illuminates the station. Passing motorists cannot help seeing it. The station naturally calls attention to itself!

Another big feature is the convenience of this station to the attendant. Note particularly that he can see his customers approaching and serve them speedily and be ready for the next customers.

Besides being well planned for advertising purposes it is substantially built and combines all the other good features of Butler Ready-Made Steel Buildings:

- They are ready to erect
- They are easy to erect
- They are noncombustible
- They will last for years
- They are attractive
- They are economical
- They are well-ventilated
- They are sanitary

They are sturdy, which gives them extra stability for permanent use. Their design makes them portable when desired.

Sizes and weights are on following pages

BUTLER "FUL-LITE" READY-MADE STEEL DRIVE-IN STATIONS

Sizes and Weights

"Ful-Lite" Stations are made regularly in the four sizes listed below. Other sizes can be furnished but will require longer to make up. In order to take advantage of the lowest possible freight rate, windows and doors are shipped unglazed. Double strength clear glass, glazing clips and putty are furnished and shipped separately.



No. 1

No. 1. Office: 16 feet wide, 16 feet deep and 10 feet high. Complete with ten 58"x62" 12-light ventilating type steel sash windows equipped with metal casing. One 3'4"x6'6" hinged door with glass in upper part and equipped with metal casing. One 38"x10" stationary type steel sash window over door. One rest room 4'8"x5'6" with one 2'8"x6'6" hinged door complete with metal casing. Office is not equipped with metal ceiling.

Canopy: 16 feet wide, 14 feet long, 10 feet high, complete with metal ceiling.

Sign: 30 inches high on two sides and front of building complete with corner posts, extra top panel and bracing for attaching to roof, but unlettered and not painted.

Building is not equipped with gutter and downspout. Approximate shipping weight 7,000 pounds.



No. 2

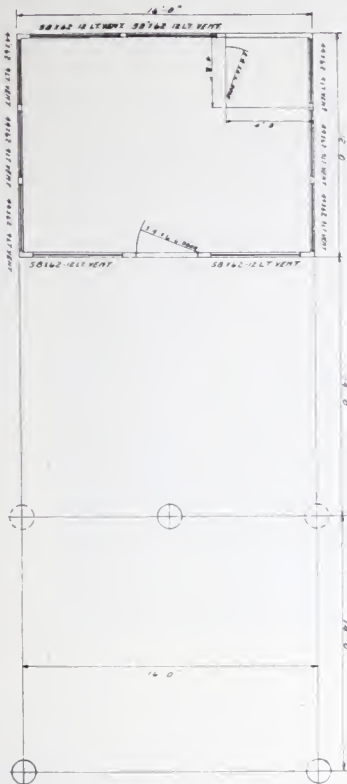
No. 2. Office: 16 feet wide, 12 feet deep and 11½ feet high. Complete with six 44"x82" 12-light and four 58"x82" 16-light ventilating type steel sash windows, equipped with metal casing. One 3'4"x6'6" hinged door with glass in upper part and equipped with metal casing. One 38"x28" stationary type steel sash window over door. One rest room 4'8"x4'2" with one 2'8"x6'6" hinged door complete with metal casing. Office is not equipped with metal ceiling.

Canopy: 16 feet wide, 14 feet long and 11½ feet high, complete with metal ceiling.

Sign: 30 inches high on two sides and front of building, complete with corner posts, extra top panel and bracing for attaching to roof, but unlettered and not painted. Building is not equipped with gutter and downspout. Approximate shipping weight 7,800 pounds.

BUTLER "FUL-LITE" READY-MADE STEEL DRIVE-IN STATIONS

Sizes and Weights—Continued



No. 3

No. 3. Office: 16 feet wide, 12 feet deep and 10 feet high. Complete with six 44"x62" 9-light and four 58"x62" 12-light ventilating type steel sash windows, equipped with metal casing. One 3'4"x6'6" hinged door with glass in upper part and equipped with metal casing. One 38"x10" stationary type steel sash window over door. One rest room 4'8"x4'2" with one 2'8"x6'6" hinged door complete with metal casing. Office is not equipped with metal ceiling.

Double Canopy: 16 feet wide with two 14-foot drives or a total length of 28' and 10' high with two canopy support posts at end of canopy and either one or two posts as desired in middle of canopy, complete with metal ceiling.

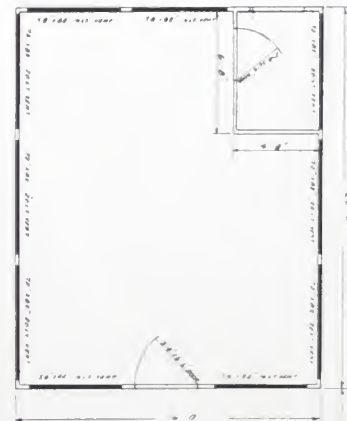
Sign: 30 inches high on two sides and front of building complete with corner posts, extra top panel and bracing for attaching to roof, but unlettered and not painted. Building is not equipped with gutter and downspout. Approximate shipping weight 7,500 pounds.

No. 4. Office: 16 feet wide, 20 feet long and 11½ feet high. Complete with four 58"x82" 16-light and six 72"x82" 20-light ventilating type steel sash windows, equipped with metal casing. One 3'4"x6'6" hinged door with glass in upper part and equipped with metal casing. One 38"x28" stationary type steel sash window over door. One rest room 4'8"x6'8" with one 2'8"x6'6" hinged door complete with metal casing. Office is not equipped with metal ceiling.

Canopy: 16 feet wide, 14 feet long and 11½ feet high complete with metal ceiling.

Sign: 30 inches high on two sides and front of building complete with corner posts, extra top panel and bracing for attaching to roof, but unlettered and not painted.

Building is not equipped with gutter and downspout. Approximate shipping weight 8,600 pounds.



No. 4



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SIZES AND WEIGHTS OF BUTLER "UNIVERSAL" READY-MADE STEEL DRIVE-IN STATIONS



"Universal" Stations are regularly made in the four sizes listed below. Other sizes can be furnished but will require longer to make up.

No. 1

Office: 16 feet wide, 16 feet long and 10 feet high. Complete with six 44"x62" 9-light ventilating type steel sash windows equipped with metal casing. One 3'4"x6'6" hinged door with glass in upper part and equipped with metal casing. Office not equipped with metal ceiling.

Canopy: 16 feet wide, 14 feet long and 10 feet high, complete with metal ceiling.

Office and canopy equipped with gutter and down spout.

For dimensions of floor plan, see No. 1 "Ful-Lite" page 30.

Approximate shipping weight 6,225 pounds.

No. 2

Office: 16 feet wide, 12 feet long and 10 feet high. Complete with six 44"x62" 9-light ventilating type steel sash windows equipped with metal casing. One 3'4"x6'6" hinged door with glass in upper part and equipped with metal casing. Office not equipped with metal ceiling.

Canopy: 16 feet wide, 14 feet long and 10 feet high, complete with metal ceiling.

Office and canopy equipped with gutter and down spout.

For dimensions of floor plan, see No. 2 "Ful-Lite" page 30.

Approximate shipping weight 5,800 pounds.

No. 3

Office: 16 feet wide, 12 feet long and 10 feet high. Complete with six 44"x62" 9-light ventilating type steel sash windows equipped with metal casing. One 3'4"x6'6" hinged door with glass in upper part and equipped with metal casing. Office not equipped with metal ceiling.

Double Canopy: 16 feet wide, 28 feet long and 10 feet high, complete with center posts and metal ceiling.

Office and canopy equipped with gutter and down spout.

For dimensions of floor plan, see No. 3 "Ful-Lite" page 31.

Approximate shipping weight 7,000 pounds.

No. 4

Office: 16 feet wide, 20 feet long and 10 feet high. Complete with six 44"x62" 9-light ventilating type steel sash windows equipped with metal casing. One 3'4"x6'6" hinged door with glass in upper part and equipped with metal casing. Office not equipped with metal ceiling.

Canopy: 16 feet wide, 14 feet long and 10 feet high, complete with metal ceiling.

Office and canopy equipped with gutter and down spout.

For dimensions of floor plan, see No. 4 "Ful-Lite" page 31.

Approximate shipping weight 6,630 pounds.

Apron on front of canopy can be removed if desired.

SIZES AND WEIGHTS OF BUTLER "ECONOMY" READY-MADE STEEL DRIVE-IN STATIONS



"Economy" Stations are regularly made in the four sizes listed below. Other sizes can be furnished but will require longer to make up.

No. 1

Office: 16 feet wide, 16 feet long and 10 feet high. Complete with six 44"x62" 9-light ventilating type steel sash windows. One 3'4"x6'6" hinged door with glass in upper part. Door and windows not equipped with metal casing.

Canopy: 16 feet wide, 14 feet long and 10 feet high.

Office and canopy not equipped with metal ceiling.

For dimensions of floor plan, see No. 1 "Full-Lite" page 30.

Approximate shipping weight 5,460 pounds.

No. 2

Office: 16 feet wide, 12 feet long and 10 feet high. Complete with six 44"x62" 9-light ventilating type steel sash windows. One 3'4"x6'6" hinged door with glass in upper part. Door and windows not equipped with metal casing.

Canopy: 16 feet wide, 14 feet long and 10 feet high.

Office and canopy not equipped with metal ceiling.

For dimensions of floor plan, see No. 2 "Full-Lite" page 30.

Approximate shipping weight 5,050 pounds.

No. 3

Office: 16 feet wide, 12 feet long and 10 feet high. Complete with six 44"x62" 9-light ventilating type steel sash windows. One 3'4"x6'6" hinged door with glass in upper part. Door and windows not equipped with metal casing.

Double Canopy: 16 feet wide, 28 feet long and 10 feet high.

Office and canopy not equipped with metal ceiling.

For dimensions of floor plan, see No. 3 "Full-Lite" page 31.

Approximate shipping weight 6,015 pounds.

No. 4

Office: 16 feet wide, 20 feet long and 10 feet high. Complete with six 44"x62" 9-light ventilating type steel sash windows. One 3'4"x6'6" hinged door with glass in upper part. Door and windows not equipped with metal casing.

Canopy: 16 feet wide, 14 feet long and 10 feet high.

Office and canopy not equipped with metal ceiling.

For dimensions of floor plan, see No. 4 "Full-Lite" page 31.

Approximate shipping weight 5,870 pounds.



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ACCESSORIES FOR BUTLER READY-MADE STEEL DRIVE-IN STATIONS

Station Light Posts

Butler *Ready-Made* Filling Station Light Posts are made of heavy galvanized steel or blue annealed steel lacquered as desired and are furnished with 19-inch globe. These add to the neat appearance of a station and help to draw trade.

Lining for Butler *Ready-Made* Steel Buildings



The above shows suggested method of attaching lining to a Butler *Ready-Made* Steel building. Metal furring clips will be furnished free of charge if requested at the time building is ordered.

Information on a composition will gladly be given on request. Information can also be obtained by consulting local dealers who are in a position to furnish these linings, which consist of any one of a number of wall boards.

Metal Ceiling For Canopy or Office

The metal ceiling furnished for Butler *Ready-Made* Buildings and Drive-in Stations is made of galvanized steel, panel corrugated like wall and roof sheets.

Approximate shipping weight, with ceiling reinforcements, $1\frac{1}{4}$ pounds per square foot.

Gutters and Down Spouts

Made of heavy galvanized steel. They are not regularly furnished with the building

unless mentioned in the description. They are complete with band and braces for attaching.

Approximate shipping weight, $1\frac{1}{2}$ pound per foot.

"Ful-Lite" Signs

Signs are 30 inches high and are complete with corner posts, top panel and bracing for attaching to roof.

For illustration see "Ful-Lite" Station page 29.

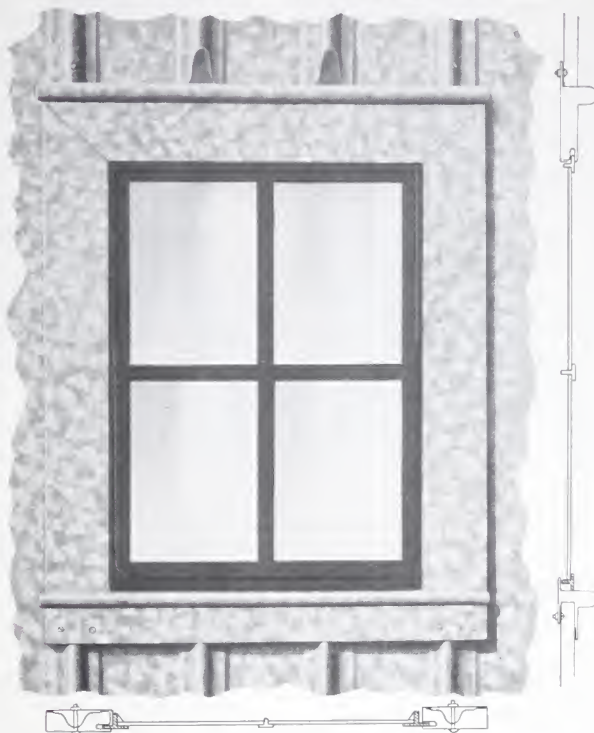
Approximate shipping weight 5 pounds per linear foot.



ACCESSORIES FOR BUTLER READY-MADE STEEL DRIVE-IN STATIONS

—Continued

Metal Casing for Windows and Doors



It is made of galvanized steel, so formed that it goes together easily. This casing adds greatly to the pleasing appearance of

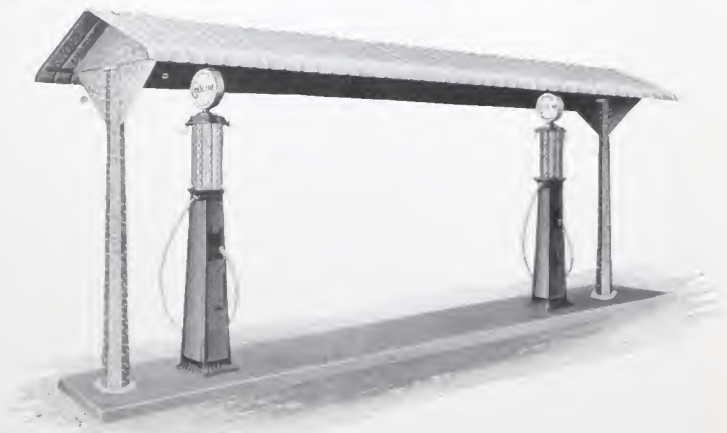
the building. Its use is recommended on every drive-in station and every building where neat appearance is desired.

SIZES OF BUTLER READY-MADE STEEL PUMP CANOPIES

Butler Pump Canopies are regularly made in 6 and 8 foot widths and from 6 to 16 foot lengths, in multiples of 2 feet. They are 10 feet high.

They are made with a regular filling station canopy post at each end. The gable ends are neatly enclosed and the canopies are shipped complete (with all necessary bracings, bolts and reinforcements) ready to erect on your foundation.

Canopies are shipped knocked down and crated and, like buildings, take a third class



freight rate in less than carload shipments. They are ideal for curb pump installation.

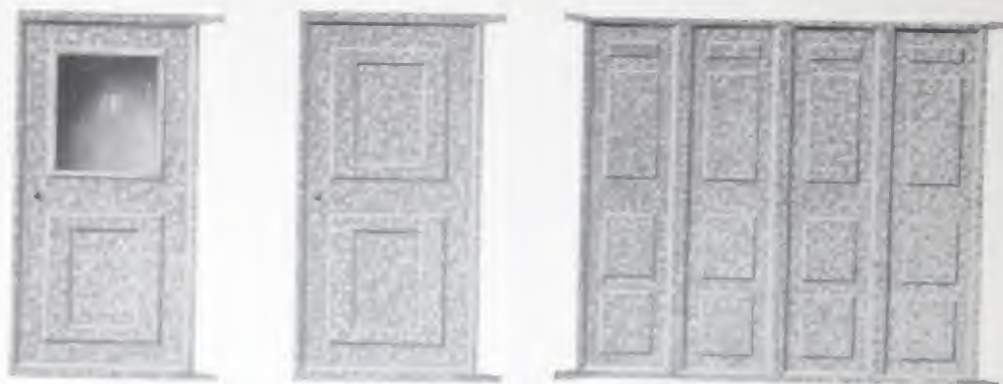
BUTLER

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SIZES OF BUTLER READY-MADE STEEL DOORS

For Buildings, Garages and Drive-in Stations



Hinged Doors

Butler hinged doors are regularly made complete with hinges, lock and angle frame for door opening. Doors of the following sizes have pressed panels and are made to resist twisting or sagging:

Single Doors

No.	Size	No.	Size
H2866	2'8" x 6'6"	H40711	4' x 7'11"
H3466	3'4" x 6'6"	H4092	4' x 9'2"
H4066	4' x 6'6"	H5072	5' x 7'2"
H4072	4' x 7'2"	H5092	5' x 9'2"

Double Doors

No.	Size	No.	Size
H5466	5'4" x 6'6"	H8072	8' x 7'2"
H6866	6'8" x 6'6"	H80711	8' x 7'11"
H7472	7'4" x 7'2"	H8092	8' x 9'2"
H8066	8' x 6'6"	H10092	10' x 9'2"

* Sizes in stock and ready for quick shipment.



Double Hinged Doors

Double Hinged Doors

No.	Size
DH8072	8' x 7'2"
DH10072	10' x 7'2"
DH8092	8' x 9'2"
DH10092	10' x 9'2"

Glass Lights For Doors

These lights are for use in our regular paneled doors.

2'8" x 6'6" door,	1 light 14" x 25"
3'4" x 6'6" door,	1 light 23" x 25"
4' x 7'2" door,	2 lights 10" x 24"

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SIZES OF BUTLER READY-MADE STEEL DOORS—Continued

Butler sliding doors are regularly made complete with tracks, hangers, lock attachments and angle frame for door opening.

Sliding Doors

Framed sliding doors are made of regular wall sheets riveted to an angle frame. They are complete with rollers and track.

Paneled sliding doors are made double thickness with paneled sides. These panels are made by an embossing die on a heavy press. This enables them to resist twisting or sagging.



No.	Size for 8' High Walls
*S4076	4'x7'6" Single
S5076	5'x7'6" Single
*S6076	6'x7'6" Single
S8076	8'x7'6" Double
*S10076	10'x7'6" Double
S12076	12'x7'6" Double

No.	Size for 10' High Walls
S4096	4'x9'6" Single
S5096	5'x9'6" Single
S6096	6'x9'6" Single
S8096	8'x9'6" Double
*S10096	10'x9'6" Double
S12096	12'x9'6" Double

*Sizes in stock and ready for quick shipment.

Framed Sliding Doors

Door sizes shown below are for doors sliding by each other on double tracks.

No.	Size for 8' High Walls	No.	Size for 10' High Walls
DTS8076	8'x7'6"	DTS8096	8'x9'6"
DTS10076	10'x7'6"	DTS10096	10'x9'6"
DTS12076	12'x7'6"	DTS12096	12'x9'6"
Double		Double	



Paneled Sliding Doors



BUTLER MANUFACTURING CO.

Kansas City — Minneapolis

SIZES OF BUTLER READY-MADE STEEL SASH WINDOWS



Steel sash for 22"x24" ventilating type window.



Steel sash for 44"x62" ventilating type window.



Above is shown ventilating type steel sash window equipped with metal casing. The casing is recommended on every building where neat appearance is desired.

Glass for all windows below is cut to proper size and boxed separately. Putty for glazing and glazing clips are also furnished.

Windows include double strength clear glass and putty.

Double strength clear glass is transparent and for that reason is preferred in some instances, as for service doors in filling stations, etc., where transparency is desired. The following kinds of glass can be furnished at small additional charge:

Three-sixteenth-inch ribbed glass is not transparent, but diffuses the light better than clear glass and, being thicker, is considerably stronger. It is generally preferred for warehouses or factory buildings.

One-quarter-inch ribbed wire glass is similar to three-sixteenth-inch ribbed glass, but is thicker and is reinforced with wire mesh to strengthen it.

Glass is shipped separately with sufficient putty and glazing clips. Glazing must be done after building is erected.

STEEL SASH—Stationary Type

No.	Width in inches	Height in inches	No. of lights	Size of lights in inches
*SW2224	22	24	4	9 3/4 x 10 3/4
SW2236	22	36	6	9 3/4 x 10 3/4
SW2248	22	48	8	9 3/4 x 10 3/4
SW2519	25	19	2	12x18
SW3819	38	19	3	12x18
*SW2537	25	37	4	12x18
SW3837	38	37	6	12x18
SW5038	50	38	8	12x18
SW3856	38	56	9	12x18
*SW4462	44	62	9	14x20
SW5056	50	56	12	12x18
*SW5862	58	62	12	14x20
SW6256	62	56	15	12x18
SW7262	72	62	15	14x20
SW5074	50	74	16	12x18
SW5882	58	82	16	14x20
SW6274	62	74	20	12x18
*SW7282	72	82	20	14x20

STEEL SASH—Ventilating Type

No.	Width in inches	Height in inches	No. of lights	Size of lights in inches
*VW2224	22	24	4	9 3/4 x 10 3/4
VW2236	22	36	6	9 3/4 x 10 3/4
VW2248	22	48	8	9 3/4 x 10 3/4
VW2519	25	19	2	12x18
VW3819	38	19	3	12x18
VW2537	25	37	4	12x18
VW3837	38	37	6	12x18
VW5038	50	38	8	12x18
VW3856	38	56	9	12x18
*VW4462	44	62	9	14x20
VW5056	50	56	12	12x18
*VW5862	58	62	12	14x20
VW6256	62	56	15	12x18
VW7262	72	62	15	14x20
VW5074	50	74	16	12x18
VW5882	58	82	16	14x20
*VW6272	62	72	20	12x18
*VW7282	72	82	20	14x20

*Sizes in stock and ready for quick shipment.

HINGES FOR SWINGING DOORS

Butler hinges are adjustable. They are sturdily built. They are easily installed. They are made to give long service.



BUTLER MANUFACTURING CO.

Kansas City — Minneapolis



SIZES AND WEIGHTS OF BUTLER READY-MADE STEEL VENTILATORS

Butler Ventilators are well made of 20 and 24 gage galvanized steel and are sturdily braced. Full opening is provided to allow complete use of outlet.

Note: Roof flange with collar is not regularly furnished when ventilators are ordered separately.

Butler ventilators are made in two types: Stationary and revolving.

The stationary ventilators are made with a wide band and cone in center. The wind blowing across the cone produces a draft in the ventilator.

The revolving ventilators are provided with a large vane on top which revolves the ventilator on its ballbearing turntable even with a breeze.



Revolving Type



Stationary Type

REVOLVING TYPE

No.	Size	Ship. Wt.	Gage
RV12	12"	50 lbs.	24
RV16	16"	65 lbs.	24
RV18	18"	75 lbs.	24
RV20	20"	85 lbs.	24
RV24	24"	100 lbs.	24
RV30	30"	200 lbs.	20
RV36	36"	275 lbs.	20

STATIONARY TYPE

No.	Size	Ship. Wt.	Gage
SV12	12"	50 lbs.	24
SV16	16"	60 lbs.	24
SV18	18"	70 lbs.	24
SV20	20"	80 lbs.	24
SV24	24"	90 lbs.	24
SV30	30"	115 lbs.	24
SV36	36"	150 lbs.	24

PARTITIONS FOR BUTLER READY-MADE STEEL BUILDINGS

Full or wall height partitions can be furnished for all Butler Ready-Made Steel

Buildings. These are made of regular wall sheets bolted to an angle frame.

**OFFICIAL TESTS***of the Fireproofness of Sheet Steel Garages**

"Two tests to determine the stability under fire conditions of all-steel garages and the hazard to adjacent buildings incident with a complete burning out of contents have been recently completed at the Bureau of Standards. Municipal building code and fire regulations vary widely in different cities relative to the minimum distance from the lot line and adjacent buildings at which such garages can be built. Where space is limited this often determines the choice in type of garage construction used. The tests were conducted at the request of the Sheet Steel Trade Extension Committee which constructed the garages for the tests.

"The garage burned out was 18 by 18 feet in horizontal dimensions with gable roof and built to accommodate two cars. The sheet metal roof was supported by the steel end framing and one center steel truss. The contents for each test consisted in part of two old 5 or 7 passenger automobiles near the medium in weight and size, having wood framed bodies, one touring and one sedan. A 10-foot work bench, shelves, paper, waste barrel and lumber on the floor and on the steel framing overhead gave an additional combustible content of about 1000 pounds. There was about 14 gallons of gasoline in the tanks of the two cars and the crank cases were filled before the test. From information available the combustible contents were somewhat above the average that ordinarily obtains.

"In the first test, three wood frame walls finished with old lap siding were placed adjacent to three sides of the garage, 12 inches, 18 inches and 24 inches, respectively, from the wall lines. Temperatures were measured inside of the garage and on the exposed surfaces of the wood walls. The weather was warm (86° F.) at the time of the test and calm. The fire was started in the front of the car and within 15 minutes both cars were burning actively. The average temperature within the garage rose to a maximum of 571° C. (1060° F.) in 70 minutes, after which it fell slowly, being 336° C. (637° F.) at 2 hours, 219° C. (426° F.) at 3 hours and 129° C. (264° F.) at 4 hours. The maximum temperature measured inside of the garage at any one point was 726° C. (1339° F.). One of the double doors of the garage was kept partly open during the test to admit enough air for free combustion. Everything combustible within was completely consumed, even the oil in the crank case. Glass and the more fusible metals were melted. The gasoline in the tanks vaporized and burned quietly without any explosive effects. The garage walls and roof did not buckle or open up appreciably during the fire. It effectively restrained the flames and hot gases within, the heat exposure to the wooden walls being almost wholly from radiation. These ignited in from 30 minutes to one hour after the start of the test, depending on the distance from the garage walls. The fire on each could be kept down with a 5-gallon pump type fire extinguisher that was refilled with water at intervals.

"In the second test two wooden walls were spaced, respectively, 3 feet and 5 feet from two of

the garage walls, and near the third wall was placed a sheet metal garage with part of the exposed wall two feet and part of it three feet from the wall of the garage to be burned out. The exposed metal garage had a wood bench against its exposed wall with oily waste on it in contact with the metal of the wall. It housed a car with gasoline in its tank and carburetor. The fire inside of the garage attained about the same intensity and duration as in the first test. The wooden wall spaced 3 feet from the garage ignited one hour and four minutes after the start of the test and small blazes on this wall developed at intervals during the next 30 minutes. They were all easily quenched with the hand pump extinguisher. The wall spaced five feet from the garage did not ignite but a high enough temperature developed to cause smoking of the boards about five feet above the ground. The maximum temperatures indicated by thermo-couples against the exposed face of this wall was 182° C. (360° F.) although it is probable that portions of the wall were somewhat hotter. After exposure to heat of durations comparable with those obtaining in these tests, wood ignites at temperatures near 250° C. (482° F.).

"The measured temperatures inside of the exposed sheet metal garage did not exceed 73° C. (163° F.) as measured against the inside face of the sheet metal wall placed 2 feet from the burning garage. The temperature inside of the car in this garage did not exceed 28° C. (82° F.) the outside air temperature during test being 21° C. (70° F.) The temperature of the gasoline in the tank of this car rose only 1.6° C. (3° F.) and the temperature near the carburetor 2.7° C. (5° F.).

"The interpretation of results depends on the assumptions relative to the degree of hazard with which a minor building such as a garage may expose a major building or another garage. If exposure of a degree that can be controlled with minor fire fighting equipment or effort is to be permitted, it is apparent that the all-steel garage can be placed as close as one foot from the lot line for all walls except the door side, provided any windows, in the wall next to the lot line or exposed building have fixed metal frames glazed with wire glass. Under the same conditions an all-steel garage would be no hazard to a similar garage two feet away.

"The fact that there was little buckling or other distortion of the sheet steel and framing members can be attributed to the low loads present during test. These buildings must necessarily be designed for wind and snow loads that give stresses several times higher than those from the dead load of the building itself.

"These tests as well as some preliminary trials with the burning of gasoline in automobile gasoline tanks indicate that there is little probability of explosion occurring. If pressure develops due to vaporization of the gasoline it is likely to be relieved before a high intensity is built up by failure of the joints of the tank, forcing of carburetor or vacuum tank or melting of soldered connections."

*This is copy of official article which appeared in the Bureau of Standards' publication, "The Technical News Bulletin," on July 10th, 1926.

BUTLER MANUFACTURING CO.

Kansas City — Minneapolis



HERE ARE SOME BUILDINGS BUTLER HAS FURNISHED



No. 1

Natural gasoline
plant: 34 feet wide,
90 feet long and 10
feet high.



No. 2

Warehouse: 30 feet
wide, 40 feet long
and 12 feet high.



No. 3

Warehouse: 16 feet
wide, 20 feet long
and 10 feet high;
porch 8 feet wide
on three sides.



No. 4

Implement storage
building: 18 feet
wide, 24 feet long
and 8 feet high.



BUTLER MANUFACTURING CO.

Kansas City — Minneapolis

THIS IS A VARIETY OF BUTLER STEEL BUILDINGS



No. 5

Dining hall: 30
feet wide, 90 feet
long and 10 feet
high.



No. 6

Hotel: 24 feet
wide, 80 feet
long and 8 feet
high.



No. 8

Garage: 6 feet wide, 28 feet
long and 3 feet 6 inches high.



No. 7

Toilet: 4 feet
wide, 4 feet long
and 7 feet high.

BUTLER MANUFACTURING CO.
Kansas City — Minneapolis



ONE OF THESE BUILDINGS MAY FILL YOUR NEED



No. 9
 Building for wash
 rack: 32 feet wide,
 48 feet long and 10
 feet high.

No. 10
 Drive-in station: 18
 feet wide, 14 feet
 long and 10 feet
 high; double canopy
 28 feet long.



No. 11
 Drive-in station: 16
 feet wide, 10 feet
 long and 10 feet
 high; two 16-foot
 canopies.



No. 12
 Drive-in station: 14
 feet wide, 22 feet
 long and 10 feet
 high; canopy 14 feet
 long.



BUTLER MANUFACTURING CO.

Kansas City — Minneapolis

LOOK THESE BUILDINGS OVER FOR SUGGESTIONS



No. 13

Warehouse: 40 feet wide, 64 feet long and 10 feet high.



No. 14

Garage: 24 feet wide, 48 feet long and 10 feet high.



No. 15

Open shed: 16 feet wide, 56 feet long and 10 feet high.

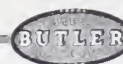


No. 16

Gasoline plant: 34 feet wide, 384 feet long and 10 feet high.

BUTLER MANUFACTURING CO.

Kansas City — Minneapolis



OIL MEN AND OTHERS MAY USE THESE TYPES



17. Gasoline plant:
40 feet wide, 230 feet
long and 10 feet high.



18. Gasoline plant: inside
view of No. 17.



19. Power House: 30 feet and
18 feet wide, 80 feet long and
8 feet high.



20. Combination warehouse and office: 20 feet wide, 50 feet
long and 10 feet high.

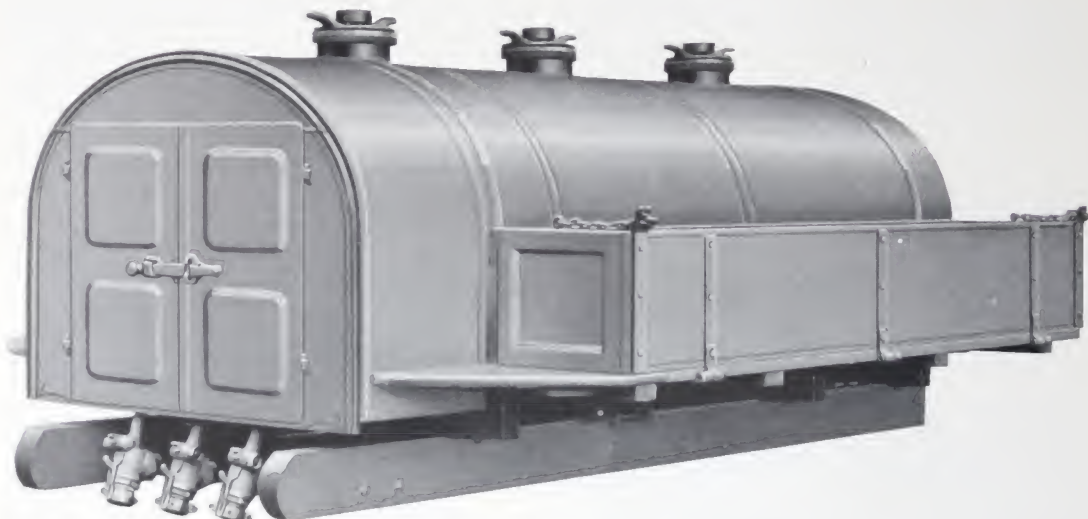
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BUTLER COMPLETE SERVICE TO THE OIL INDUSTRY

Includes producer, refiner, jobber, dealer



A Butler Truck Tank



A Butler Storage Tank

For the oil station complete Butler furnishes: unloading apparatus unloading pumps, fireproof pump house, storage tanks (vertical or horizontal), tank supports, all necessary pipe, valves, and fittings, fireproof steel warehouse, truck tanks, cans, buckets, funnels, barrels and hose.

For the drive-in station complete Butler furnishes: fireproof steel filling station, 10-gallon visible pump, underground tank, air compressor and hose.

**Send for Complete
Oil Equipment
Catalog**

BUTLER BOLTED TANKS



Butler Bolted Tanks are shipped knocked down, complete in every way. The erection is simple, if directions, which we will furnish, are carefully followed.

These tanks are carried in stock by several concerns who make a specialty of selling them erected, and if you do not know who

handles these tanks for us where you want them, write us and we will tell you from whom they can be secured. If we do not have a local representative we will send literature, giving detailed description of the construction and quote prices on the quantity wanted.

Any kind of welded tank made to your specification



BUTLER MANUFACTURING CO.

Kansas City — Minneapolis

TWO LARGE, MODERN, DAYLIGHT FACTORIES

FULLY EQUIPPED WITH LATEST MACHINERY AND CONVENIENCES, LOCATED IN KANSAS CITY AND MINNEAPOLIS TO SERVE OUR TRADE BETTER.



Our factory at Kansas City, Mo.



Our factory at Minneapolis, Minn.

